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AUTHOR Geer, Ruth
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ABSTRACT

This paper utilizes a model of technology-mediated interaction to highlight the importance of social interaction in the construction of a collaborative online learning community. Learning communities are built around relationships. There are many factors that impact on the ability of social interaction to create social comfort and the capacity for mutual consideration in an online learning community. This paper addresses the importance of understanding the impact that cultural influences have on the creation of a positive and successful learning community. An understanding of cultural influences has the potential to alleviate some of the misunderstandings and misinterpretations that can occur through such lack of knowledge. Through consideration of cultural influences, social interaction can increase the potential for collaboration and successful attainment of quality learning outcomes. (Contains 23 references.) (Author/AEF)

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Ruth Geer
Lecturer, Educational Computing
University of South Australia
Australia
Email: ruth.geer@unisa.edu.au

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Abstract: This paper utilises a model of technology-mediated interaction to highlight the importance of social interaction in the construction of a collaborative online learning community. Learning communities are built around relationships. There are many factors that impact on the ability of social interaction to create social comfort and the capacity for mutual consideration in an online learning community. This paper will address the importance of understanding the impact that cultural influences have on the creation of a positive and successful learning community. An understanding of cultural influences has the potential to alleviate some of the misunderstandings and misinterpretations that can occur through such lack of knowledge. Through consideration of cultural influences, social interaction can increase the potential for collaboration and successful attainment of quality learning outcomes. Knowing this, how can we accommodate these differences into our courses?

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Introduction

The potential of the Internet to enhance learning through online collaborative learning communities is partially constrained by our understanding of cultural influences that support a framework for ensuring effective collaboration. Research, by Kirby (1999) and Hiltz (1998), clearly points to the value of interactivity and collaboration in any learning community where the exchanges are not only active but also interactive. Three essential attributes of an effective learning community are active learning in construction of knowledge, positive interpersonal relationships and rich discourse among participants in promoting their learning. The online learning environment through the use of appropriate technologies provides an opportunity for interaction and collaboration, which can lead to quality learning outcomes. The technologies that can mediate communication in order to develop such attributes must have a global reach. The effective online educational environment of the future will need to contend with audiences of diverse backgrounds and particularly audiences from a wide variety of cultures.

Literature Review

Although as human beings, we communicate with others in many ways and across many mediums, communication is not always easy, even when we feel we know the other person. Cultural influences are often at the root of the communication challenge (DuPraw & Axner 1997) where misunderstandings and misinterpretations occur. Interaction and collaboration become much harder when communicating with total strangers in the online environment. With our first utterances online we all experience fears of being judged and misunderstood. As well as this we bring our prejudices and biases with us into our discussion. Our cultural background can shape the way we participate in discussion, how we understand the world and how we may approach problems. A key component of effective collaborative efforts is social interdependence when individuals share common goals and each individual's outcomes are affected by the actions of others (Johnson & Johnson 1989). Positive interdependence is at the heart of any learning community where learning is as much based on relationships as it is on intellectual discourse (Johnson & Johnson 1998). Exchanges at a social level provide the foundation on which relationships can be built and determine how individuals will interact with each other. This emphasises the importance of gaining some knowledge about the other participants in the learning environment. We need to feel socially comfortable and develop the capacity for mutual consideration in order to

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become actively engaged in collaboratively supporting each other to develop skills in reasoning, critical thinking, hypothesis formation and reflection. Such social comfort may be achieved by providing time in the course where students can share aspects of their cultural background.

The amount and quality of interaction in a student-centred environment play a key role in the learning process as well as having a significant impact on the learning outcomes. When focusing on pedagogical issues, much has been written about the value of fostering collaboration and cooperation (Agostinho Lefoe & Hedberg 1997). Communication technologies are providing the opportunity to connect people and to foster collaboration and discursive exchanges on a vast array of topics. They are used to build relationships and to provide the scaffolding that guides, supports and develops the construction of knowledge leading to quality learning outcomes.

Johnson & Johnson (1996, 1998) have provided a strong theoretical basis for cooperative learning as outlined in cognitive developmental, behavioural and social interdependence theories. A pedagogy engendering cooperation might require students to work on an agreed, explicit, common goal, which is then sub-divided into component tasks on which the students will work individually until completed. The result is a combination of the individual efforts. Collaboration goes a step further where there is continual interaction and discussion related to the goal. Individual tasks may be relegated and distributed according to abilities, but the goal requires that individuals cooperate and construct shared understanding and knowledge. Through constant interaction, individual efforts are merged resulting in the culmination and achievement of a common and explicit goal. Collaborative interactivity is a combination of collaboration over learning tasks and rich discursive interaction.

Students learn best by interacting with others, rather than working in isolation. Wittrocks' generative learning theory, now popularly termed constructivism, also attempts to add support by explaining that people learn best when working together (Susman 1998). Students motivate and encourage each other to remain focused on the task. The resultant interactivity leads to knowledge building, which requires "articulation, expression or representation of what is learned" (Jonassen 1999). Such thinking is aligned with current conceptions of constructivist learning. Out of the notion of discovery and exploration has emerged research on interactive and collaborative learning around meaningful activities. Of particular interest in this paper is the social interactivity that underpins collaborative efforts.

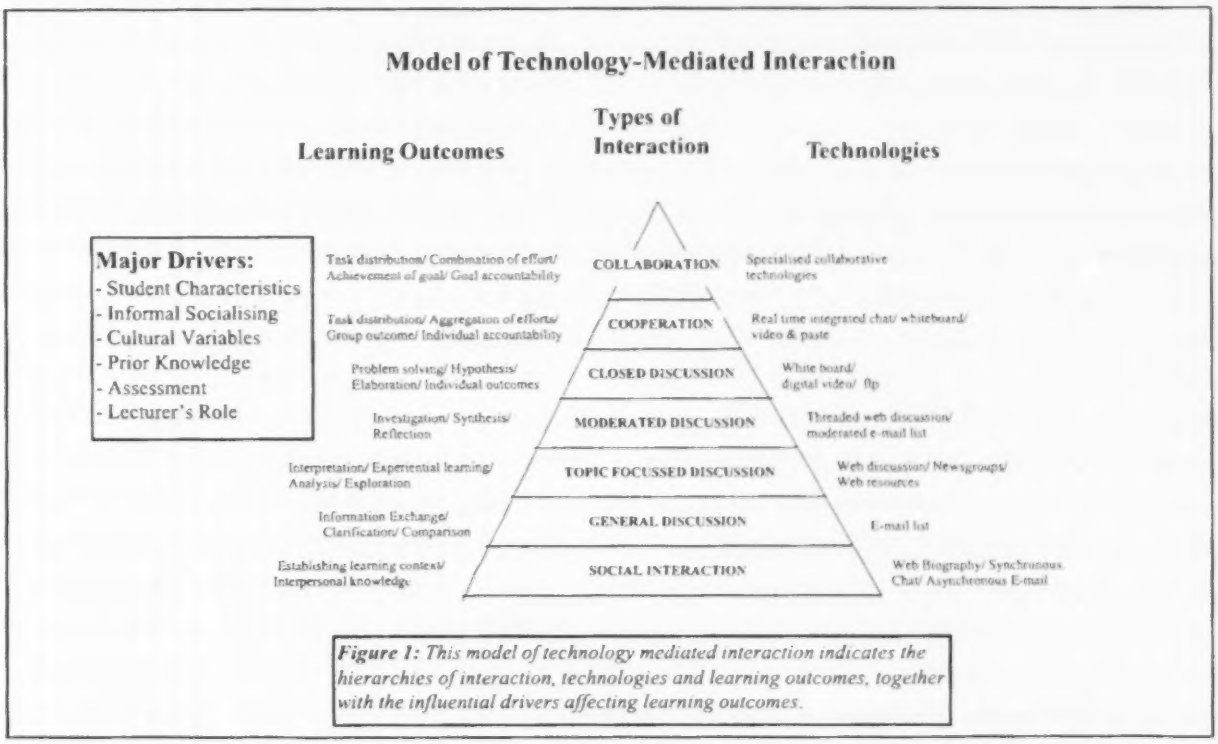

Figure 1: *This model of technology mediated interaction indicates the hierarchies of interaction, technologies and learning outcomes, together with the influential drivers affecting learning outcomes.*

The Model

There are many external factors or drivers that can impact on the effectiveness of collaborative interactivity and associated learning outcomes in the online environment where time and place are no longer prescribed. These drivers can include cultural variables, student characteristics, informal socialising, prior knowledge, assessment, the available technologies and the lecturer's involvement. The model, (Figure 1), has been developed in order to explain the relationship between the types of interactivity that can occur and the suitability of various technologies to support interaction. The term "technology-mediated" has been used to characterise interaction through the use of Internet technologies. It also is an attempt to describe a progression of learning outcomes achieved through interaction that show a shift from surface to deep learning (Ramsden 1992).

The model is portrayed in the shape of a pyramid with a series of levels building on from each other and leading to collaborative interactivity at the apex. It is expected that the higher the level, the greater the quality and frequency of interaction that will occur. Collaboration is surmised as currently providing the highest level of meaningful interaction and engagement through the use of sophisticated and often specialised multimedia communication tools. It is not expected that every course will incorporate all levels of the pyramid. However it provides a conceptual framework in which you can identify the entry point of the type of interaction required, utilising the various technologies that support such a level and ensuring that relevant learning outcomes are being achieved.

The Importance of Social Interaction

Social interaction forms the foundation on which all other levels of interactivity are dependent. Web biographies, synchronous chat and asynchronous email can be used to provide opportunities for self-disclosure, an understanding of social behaviours and the capacity for mutual consideration. Interpersonal relationships are critical in a collaborative learning community, as the more individuals care about each other, the harder they will work to achieve a mutual sense of accomplishment. Many of the studies on interpersonal relationships in collaborative learning environments come from the traditional face-to-face framework where socialisation has its place outside of the classroom. As this is not possible in the online environment, social interaction must be built into the course design. Informal or social exchanges have the potential to alleviate some of the misunderstandings and misinterpretations that can occur from the lack of social cues and face-to-face interaction. Informal exchanges help students get to know each other. The view is held that unless opportunities are provided for participants to engage in this type of social exchange that interaction will only occur at the lower levels of interaction and learning will be impeded in achieving the higher learning outcomes. Unless we cater for social interaction as we move up to levels of collaborative interactivity, the pyramid will not be supported. Sophisticated technologies will be unable to support the higher levels of the pyramid without the foundations established for interaction.

Social interaction helps to create a positive online learning environment, by fostering trust and respect amongst learners. Social exchanges help to overcome some of the awkwardness and the reticence that learners feel in communicating with unfamiliar persons on a more formal basis (Romiszowski & Mason 1996). The social community that is created during the learning process can impact on the nature of the learning activities and the learning outcomes (McLoughlin 1999). Information about other learners in the group help to create solidarity, understanding, trust, respect, commitment, and develop standards of group conduct. Instructors are recognising the value of incorporating a communication space into the design of their courses to facilitate interpersonal exchanges, and increase the comfort of students in their exchange with other students. Muffoletto (1997) used web chat to combat feelings of isolation. Hughes & Hewson (1998) and Hiltz (1998) recognise the value of informal socializing and have created the notion of a "Coffee Shop". There are numerous factors that can impact on how learners interact and relate to each other. They include learner characteristics, demographic details, prior knowledge or education level, technical skills, literacy level, verbalisation and cultural background.

Cultural Factors

An appreciation of cultural differences can assist the process of social comfort and respect of others. Students of different cultural backgrounds may have different attitudes about and knowledge of the technologies, cross-

cultural communication patterns and learning processes when learning in the online environment (Freedman & Liu 1996). Different cultures generally have different rules and norms. Through interaction we seek to reduce anxiety and uncertainty about other's attitudes, feelings, behaviours and beliefs (Gudykunst & Kim 1995). DuPraw and Axner (1997) have identified a number of fundamental patterns of cultural differences:

Different communication styles
Verbalisation is an essential skill and active participation tends to be restricted to those who are literate and are able to express themself through competencies in language and rhetoric. Many learners from non-English speaking backgrounds can have difficulties in understanding some words and phrases as well as struggling to express themselves in a foreign language. Even native English-speakers can experience difficulties as some English speaking countries can give different meanings to the same words or phrases; for example, the meaning of "yes" can vary from "possibly" to "definitely". Where language is a problem, learners find it easier to communicate in written form rather than orally. The Internet offers learners the opportunity to reflect and formulate their response, alleviating some of the difficulties experienced by non-English speakers.

Different attitudes towards conflict
Some cultures view conflict positively encouraging discussion and debate around the various viewpoints, while others go out of their way to avoid it. In many Eastern countries differences are best worked out quietly as open conflict is considered embarrassing or demeaning (DuPraw & Axner 1997). Japanese are generally reluctant to debate in an argumentative fashion in public forums (Rheingold 1998). Chinese educated in Confucianism are taught to respect teachers as ultimate authority figures whose opinions should not be challenged. Hence anyone considered to have some authority would not be questioned and students would feel nervous about interacting with him or her. "[One] student found his learning attitude affected by the look of his tutor, [and stated that] after seeing her picture [I thought] she looked like a teacher. Then I started to feel nervous while writing formal letters to my teacher" (Cifuentes & Shih 1999). Titze (2000) in her discussion on issues relating to efforts to aid foreign teaching assistants at the University of Utah noted that they are trained to have total respect for their instructors and are discouraged from asking questions in case the teacher does not know the right answer and hence would lose face. This hinders the willingness to exchange ideas and the development of competing or opposing ideas.

Different approaches to completing tasks
Cultures can differ in the value they place on task completion, how relationships are built and how they collaborate together. DuPraw and Axner (1997) in their study found that Asian and Hispanic cultures attached more value to developing relationships at the beginning of a shared project and more emphasis on task completion toward the end, whereas European-Americans tended to focus immediately on the task at hand and let the relationships develop as they worked on the task. Shive & Row (1999) in their study found that Hong Kong students took the assignments more seriously than their American counterparts.

Different decision making styles
The individual roles that learners may play in the collaborative group will vary from culture to culture and personality to personality. Southern European and Latin American cultures place a strong emphasis on having decision-making responsibilities, whereas the Japanese prefer to have consensus. The willingness to initiate ideas will be more prominent in some cultures than others and so interaction and collaboration will be more natural for some groups than others.

Different attitudes towards disclosure
People differ in what they feel comfortable revealing about themselves. Some learners have found they can disclose more online than they would in a face-to-face classroom. Blum (1999) found that female students included more personal information in their messages than males. Self-disclosure can overcome some of the awkwardness that students feel in communicating with unknown persons. A student once sent me the following e-mail; "the fact that I was expected to comment on other's work when I would not know of their situations in work or life ... nor would I appreciate anybody commenting on my work when they have no idea about my life and work". The student recognised the importance of having some knowledge of the other group members in order to be comfortable with discussion around issues in the learning environment.

Some instructors have encouraged the use the pictures so that learners have a visual image of other participants when they communicate. This strategy has been successful in a number of courses at the University of Waikato, New Zealand. On the other hand others may feel very self-conscious about displaying a their picture. Those who do not have their pictures displayed, may sense some exclusion from the discussion. Instructors need to be

sensitive to culturally different attitudes to personal photographs.

It has also been argued that the anonymity of the Internet can be a real advantage. A person's age, gender and economic status can be masked within online environments and this may be a positive aspect that ensures equal participation. The benefits of online anonymity for teaching and learning have included increased equity and higher participation rates (Hartman, Neuwirth, Keisler, Cochran, Palmquist, & Zubrow 1995). On the other hand antisocial behaviour has been suggested as a consequence of anonymity (Rheingold 1994).

This conflict in determining how much should be disclosed, challenges instructors to be flexible in attaining a level of comfort for the students. In some cultural groupings extended disclosures and self-evaluations may sit comfortably with all, while in other groups learners may feel inhibited in providing more than a basic introduction. This illustrates the strong need for consideration of cultural differences and the need for flexibility in catering for the various groups. It is crucial for instructors to have some background cultural knowledge about the learners in their courses so that they can accommodate these differences through flexible approaches.

In referring back to the model, it may be important to increase the height of social interaction and allow more time for certain groups to feel comfortable with each other, while for other groups tension may be apparent in the time spent initiating social interaction and the desire to meet course expectations. The amount of time spent ensuring social comfort and mutual understanding will be dependent on the type of interaction and its related learning outcomes.

Different approaches about knowing

DuPraw and Axner (1997) identified the following differences as occurring among cultural groups. European cultures tend to acquire information through cognitive means, Africans preferred an affective way of knowing while Asian cultures tended to emphasise that the validity of knowledge was gained through striving towards transcendence. The Hmong culture has historically been about traditions of knowing rather than questioning. It is considered better not to try a particular skill and save face, just in case you fail (Freedman & Lui 1996). Understanding the learning processes used by students will assist instructors with their instructional design of the course. This knowledge is possibly best acquired by experience rather than reading a book.

Conclusion

An understanding of the culture of the learners and an appreciation of the patterns of cultural differences is important in helping instructors ensure meaningful learning outcomes for all students. Generalisations about cultures however should be avoided, as there are numerous variables within each culture. Such knowledge will provide guidance in determining the extent of social interaction needed for learners to move from more generalised discussion to more topic focussed discussion and task orientation. Consideration of cultural differences is critical at the higher levels of the pyramid in relation to the increasing complexity of the technologies, their associated learning outcomes and the necessary negotiations for successful collaboration.

The availability and complexity of multimedia technologies assist learners to move through the various levels of the pyramid. With further developments in technology, cultural specific overlays on design and language translation, may lessen the impact of cultural differences in a learning environment. However for the moment the instructor will continue to face cultural challenges in an effort to improve learning outcomes through collaborative interactivity.

This paper has attempted to identify the various cultural influences that can impact on creating a collaborative learning environment. It has not been able to provide a generic recipe of solutions for this problem. Considerable effort is needed to ensure social comfort, particularly where there might be open conflict between cultures.. Everyone brings with them cultural baggage, including the educator. We must identify methods that recognise and value the cultural differences rather than trying to discount them. Many of our educational systems are basically western, and the expectation is that other cultures adapt to the system. It becomes important to try to deconstruct the system to accommodate the cultural diversities. Awareness, adaptability and sensitivity will ensure that students feel comfortable working together in this environment. Students are more likely to be sensitive to cultural differences with increased knowledge about group members. Smallen and Leach (1999) argue that "successful collaborations are built on a foundation of respect" where respect is about building on the strengths and compensating for the weaknesses. Through an awareness of cultural influences, social interaction can increase the potential for collaboration and successful attainment of quality learning outcomes.

References

Agostinho, S., Lefoe, G. & Hedberg, J. (1997). 'Online collaboration for Learning: A case study of a post graduate University Course', in *AusWeb 97*, Third Australian World Wide Web Conference, 5-9 July 1997, Southern Cross University, Lismore.

Blum, K. (1999). Gender Differences in Asynchronous Learning in Higher Education: Learning Styles, Participation Barriers and Communication Patterns. *JALN*, 3 (1), 46-66.Cifuentes, L.& Shih, Y. (1999). *Teaching and Learning Online: A collaboration between U.S and Taiwanese Students*. Available: http://coe.tamu.edu/~lcifuent/classes/edtc305/research.htm (20 October, 2000).

DuPraw, M. & Axner, M. (1997). *Working on Common Cross-cultural Communication Challenges*. Available: http://www.pbs.org/ampu/crosscult.html (20 October, 2000).

Freedman, K. & Liu, M. (1996). 'The importance of computer experience, learning processes, and communication patterns in Multicultural Networking'. *Educational Technology, Research & Development*, 44 (1), 43-59.

Gudykunst, W. & Kim, Y. (1995) 'Communicating with Strangers: An approach to Intercultural Communication'. In John Stewart (Ed), *Bridges Not Walls* 6th edition, New York: McGraw-Hill, 429-442.

Hartman, K., Neuwirth, C., Keisler, S., Cochran, C., Palmquist, M. & Zubrow, D. (1995). 'Patterns of social interaction and learning to write: Some effects of network technologies. In Z. Berge & M. Collins (Eds.) *Computer mediated communication and the online classroom*: Vol. 2 Higher Education Hampton Press, New Jersey, 47-78.

Hiltz, S. R. (1998). *Collaborative learning in Asynchronous Learning Networks: Building learning communities*. Available: http://eies.njit.edu/~hiltz/collaborative_learning_in_asynch.htm (August 24,1999).

Hughes, C. & Hewson, L. (1998). 'Online Interactions: Developing a neglected aspect of the virtual classroom', *Educational Technology*, July-August, 48-55.

Johnson, D & Johnson, F. (1989) *Cooperation and Competition: theory and research*. MN: Interaction, Edina.

Johnson, D. W. & Johnson R. T. (1996). 'Cooperation and the use of technology'. In D. Jonassen (Ed) *Handbook of Research for Educational Communication and Technology*. New York: Macmillan Library Reference, 1017-1044.

Johnson, D. W. & Johnson R. T. (1998). *Cooperative Learning and Social Interdependence Theory*. Available: http://www.clcrc.com/pages/SIT.html. (April 18, 2000)

Jonassen, D., Peck, K. & Wilson, B. (1999). *Learning with Technology: A Constructivist Perspective*. Upper Saddle River, New Jersey: Merrill.

Kirby, E. (1999). *'Building interaction in online and distance learning'*, Unavailable URL, see sourced at ckirby@westga.edu

McLoughlin, C. (1999). 'Culturally responsive technology use: developing an on-line community of learners', *British Journal of Educational Technology*, 30 (3), 231-243.

Muffoletto, R. (1997). 'Reflections on Designing and Producing an Internet-based Course', *TechTrends*. March, 50-53.

Ramsden, P. (1992). *Learning to Teach in Higher Education*, London: Routledge.

Rheingold, H. (1994). *The Virtual Community: Finding connection in a computerised world*. London: Secker & Warburg.

Rheingold, H. (1998) Chapter Seven: Japan and the Net in *The Virtual Community*. Available http://rheingold.com/vc/book/ (20 October, 2000).

Romiszowski, A. & Mason, R. (1996). 'Computer-Mediated Communication. In D. Jonassen (Ed) *Handbook of Research for Educational Communication and Technology*. New York: Macmillan Library Reference, 438-456.

Shive, G. & Row, J. (1999). *Collaborative learning Across Cultures via the Web*. Available: http://www.ln.edu.hk/tlc/info/ttconference/paper/paper08.htm (23 October, 2000).

Smallen, D. & Leach, K. (1999). 'Making a NICER Transition to the Millennium: five keys to successful collaboration', *Educom Review*, 34 (4).

Susman, E. B. 1998, 'Cooperative Learning: A review of factors that increase the effectiveness of cooperative computer-based instruction', *Journal of Educational Computing Research*, 18(4), 303-322.

Titze, M. (2000) *U. Bringing down cultural barriers*. Available, http://deseretnews.com/dn/view/0,1249,190007531,00.html (17 October, 2000).

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